Docket No.: 20162-00547-US

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of: Shiho Moriai et al.

Patent No.: 7,187,769

Issued: March 6, 2007

For: METHOD AND APPARATUS FOR

EVALUATING THE STRENGTH OF AN

ENCRYPTION

REQUEST FOR CERTIFICATE OF CORRECTION DUE TO PTO ERROR PURSUANT TO 37 CFR 1.322 (a) (1)

Attention: Certificate of Correction Branch Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted a typographical error which should be corrected.

In the Bibliographic data printed on the face of the issued patent:

Block [73] "Assignee" inadvertently lists "Nippon Telegraph and Telephone <u>Public</u> Corporation". The correct assignee name is "Nippon Telegraph and Telephone Corporation".

Please correct Block [73] to read:

"[73] Assignee: Nippon Telegraph and Telephone Corporation (JP)"

Patent No.: 7,187,769 Docket No.: 20162-00547-US

The error was not in the application as filed by applicant or as prosecuted. Support for applicants' assertion of PTO error may be found in the accompanying copy of the Issue Fee Transmittal and in the copy of the USPTO's EPAS assignment information which show the correct assignee name. Accordingly no fee is required.

Transmitted herewith is a proposed Certificate of Correction effecting such amendment. Patentee respectfully solicits the granting of the requested Certificate of Correction.

Applicant believes no fee is due with this request. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 20162-00547-US from which the undersigned is authorized to draw.

Dated: April 24, 2007 Respectfully submitted,

Electronic signature: /Larry J. Hume/ Larry J. Hume Registration No.: 44,163 CONNOLLY BOVE LODGE & HUTZ LLP 1990 M Street, N.W., Suite 800 Washington, DC 20036 (202) 331-7111 (202) 293-6229 (Fax) Attorney for Applicant

Attachments: Certificate of Correction

Copy of Issue Fee Transmittal (PTOL-85) Copy of USPTO EPAS Assignment Information

Copy of front page of US 7,187,769

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together witn applicable fee(s), to: Mail

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APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		CONFIRMATION NO.
09/463,907	02/02/2000		SHIHO MORIAI	AI 20162-00547-US			6943
FITLE OF INVENTION	: MTHEOD AND APPA	RATUS FOR EVALUA	TING THE STRENGTH O	F AN ENCRYPTI	ON		
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APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$0	\$0		\$1400	02/07/2007
EXAMINER ART U		ART UNIT	CLASS-SUBCLASS				
LAFORGIA, O	CHRISTIAN A	2131	380-001000				
1. Change of corresponde CFR 1.363).	ence address or indicatio	n of "Fee Address" (37	2. For printing on the patent front page, list (1) the names of up to 3 registered extent attempts. Connolly Bove Lodge				
Cr. R. 1.303). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.			(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,				
Address form P10/SB/122) attached. The end address indication (or "Fee Address" Indication form PT0/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.				
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or typ	e)			
				•	ee is ider	ntified below, the doc	cument has been filed for
(A) NAME OF ASSI			e data will appear on the patent. If an assignee is identified below, the document has been filed for of a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY)				
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interest as shown by the	records of the United Sta	ites Patent and Trademark	d from anyone other than the Office.	ie applicant, a regi	siered au	orney or agent, or the	assignee of other party in
Authorized Signature	- Zany ?	Mume		Date	1/39	0/07	
Typed or printed name Larry J. Hume				Registration N	lo. <u>44</u> ,	163	
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an application. Confidentiality is governed by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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09/463.907

METHOD AND APPARATUS FOR EVALUATING THE STRENGTH OF AN 04-24-

ENCRYPTION 2007::14:15:39

Patent Assignment Abstract of Title

Total Assignments: 1

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Filing Dt: 02/02/2000

Patent #: 7187769

Issue Dt: 03/06/2007

PCT #: NONE

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Inventors: SHIHO MORIAI, KAZUMARO AOKI, MASAYUKI KANDA, YOUICHI TAKASHIMA, KAZUO OHTA

Title: METHOD AND APPARATUS FOR EVALUATING THE STRENGTH OF AN ENCRYPTION

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KANDA, MSAYUKI TAKASHIMA, YOUICHI

Exec Dt: 01/18/2000 Exec Dt: 01/18/2000 Exec Dt: 01/18/2000

Exec Dt: 01/18/2000

Exec Dt: 01/18/2000

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(12) United States Patent Moriai et al.

(45) Date of Patent:

(10) Patent No.:

US 7,187,769 B1 Mar. 6, 2007

(54)	METHOD AND APPARATUS FOR EVALUATING THE STRENGTH OF AN ENCRYPTION					
(75)	Inventors:	: Shiho Moriai, Yokohama (JP); Kazumaro Aoki, Yokohama (JP); Masayuki Kanda, Yokohama (JP); Youichi Takashima, Yokohama (JP); Kazuo Ohta, Zushi (JP)				
(73)	Assignæ:	Nippon Telegraph and Telephone Public Corporation (JP)				
(*)	Notice:	Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.				
(21)	Appl. No.:	09/463,907				
(22)	PCT Filed	: Jun. 1, 1999				
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(51)	Int. Cl. H04K 3/0	0 (2006.01)				
(52)	U.S. Cl					
(58)	Field of C	Classification Search 380/28,				
	See applic	380/29, 37, 1 ation file for complete search history.				
(56)	References Cited					
. ,	U.S. PATENT DOCUMENTS					
	U.	B. IZILATI DOCUMENTO				

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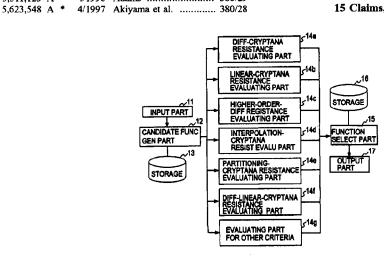
(Continued)

Primary Examiner—Christopher Revak
Assistant Examiner—Christian LaForgia
(74) Attorney, Agent, or Firm—Connolly Bove Lodge &
Hutz, LLP; Larry J. Hume

(57) ABSTRACT

In the evaluation of the randomness of an S-box, measures of resistance to higher order cryptanalysis, interpolation cryptanalysis, partitioning cryptanalysis and differential-linear cryptanalysis and necessary conditions for those measures to have resistance to each cryptanalysis are set, then for functions as candidates for the S-box, it is evaluated whether one or all of the conditions are satisfied, and those of the candidate functions for which one or all of the conditions are satisfied are selected as required. It is also possible to further evaluate the resistance of such selected functions to at least one of differential cryptanalysis and linear cryptanalysis and select those of the candidate functions which are resistant to at least one of the cryptanalyses as required.

15 Claims, 2 Drawing Sheets



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Page _1_ of _1_

PATENT NO. 7,187,769

APPLICATION NO. : 09/463,907

ISSUE DATE March 6, 2007

INVENTOR(S) Shiho Moriai et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Correct block [73] of the patent to read:

[73] Nippon Telegraph and Telephone Corporation (JP)